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THESES TO THE INFORMATIONAL REPORT "SEISMIC OBSERVATIONS OF SOVIET STATIONS IN ANTARCTICA"

In connection with the investigation of Antarctica during the period of the International Geophysical Year about 10 seismic stations opened in this region two of which belong to the Soviet Union.

On June 1, 1956 the seismic station of the South-Pole observatory "Mirny" began its uninterrupted operation. In a vault at the depth of 2.5 metres on the outcrops of crystal rocks the following seismographs are installed: a vertical and two horizontal Kirnos seismographs with the magnification of the order of 1000 for the periods from 0.2 to 10 sec, and a vertical electrodynamic seismograph (СВКМ) with the maximum magnification of about 30,000 for the periods from 1.0 to 1.5 sec.

Seismic station "Oasis Bunger" began uninterruptedly operating on July 1, 1957. Records are obtained on a three component installation: a vertical СВКМ (Modernized Kirnos Vertical Seismograph) and horizontal ВЭГИКМ (Modernized Electrodynamic Vibrograph of the Geophysical Institute, Academy of Sciences, USSR) with the magnification of about 2000 for the periods from 0.2 to 4 sec. The instruments are installed on crystal rocks.

During two years' work from June 1, 1956 to June 1, 1958 about 600 earthquakes were recorded at the stations. The epicentres of approximately 70 earthquakes from this total number are located in the Sub-Antarctic and Antarctic zones. It should be said that about half of these earthquakes is reported only by Antarctic stations.

The extreme south (about 65° S) group of earthquakes is that of the Eastern part of the South-Pacific Range. The least epicentral distances to "Mirny" and "Oasis Bunger" exceed 2000 km. The epicentres of these earthquakes are located in the region of

the oceanic Australian-Antarctic Uplift. It is interesting to note the continuity of the line of epicentres of the Australian-Antarctic Uplift and South-Pacific Range. The Antarctic Continent may be said to be almost surrounded by a seismic belt which is probably connected with the Pacific, Indian, and Atlantic Ocean seismic belts of greater activity. Earthquakes are not yet observed on the Continent itself.

Thus the obtained material confirms the old general view concerning the seismicity of the Sub-Antarctic and Antarctic zones. Further observations and the joint analysis of data of all Antarctic stations will permit in future to study the seismicity of these zones much more completely.